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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/542,950	07/21/2005	Kiyotaka Sugiura	791_332	9150
25191	7590	04/11/2008		
BURR & BROWN PO BOX 7068 SYRACUSE, NY 13261-7068			EXAMINER CLEMENTE, ROBERT ARTHUR	
			ART UNIT	PAPER NUMBER
			1797	
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			04/11/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/542,950	Applicant(s) SUGIURA ET AL.	
	Examiner ROBERT A. CLEMENTE	Art Unit 1797	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 and 13-15 is/are pending in the application.
4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 6-10 and 13-15 is/are allowed.
- 6) ☒ Claim(s) 1 and 2 is/are rejected.
- 7) ☒ Claim(s) 3-5 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 July 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____. |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>20060301, 20051014, 20050721</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1 and 2 are rejected under 35 U.S.C. 102(b) as being anticipated by French Publication No. FR 2,061,933.

The French '933 reference teaches a filter which has at least two filter elements having a substrate comprising a cylindrical porous body having many pores and having a plurality of cells as flow paths for untreated liquid and a filtering membrane comprising a porous body smaller in average pore diameter than that of the substrate and formed on the inner wall of a plurality of the cells, and said at least two filter elements are contained in a casing, wherein said at least two filter elements contained in the casing are connected in series in such a state as interposing a first sealer between them, and the first sealer separates liquid-tightly a plurality of the cells from a space formed between the outer peripheral surface of said at least two filter elements and the inner peripheral surface of the casing and does not hinder a plurality of the cells of said at least two filter elements from communicating with each other. Figure 1 shows the ceramic cylindrical porous body (3) with a plurality of cells (1) as flow paths. As discussed in page 2 lines 2 – 4, a fine layer of an aluminum containing ceramic is deposited in the cells (1) for ultrafiltration, thus this layer can be considered a filtering

membrane having pores that are smaller than the pores of the ceramic body (3). As shown in figure 3, at least two filter elements (C_1 , C_2) are contained in a casing. The filter elements are shown to be connected in series. The thermoplastic film (4) forms a first sealer between the filter elements. As disclosed in page 2 lines 28 - 30, the film (4) separates liquid-tightly a plurality of the cells (1) from a space formed between the outer peripheral surface of the filter element and the inner peripheral surface of the casing. The film inherently would not hinder the cells from the filter elements from communicating with each other since this would block the passage of fluid through all the filter elements.

Allowable Subject Matter

3. Claims 3 – 5 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
4. Claims 6 – 15 are allowed.
5. The following is a statement of reasons for the indication of allowable subject matter:

In regard to claim 3, the French '933 reference discloses a film (4) that can be considered a first sealer. There is no teaching or suggestion of a seal cap forming the first sealer.

In regard to claims 4 and 5, there is no teaching or suggestion in the '933 reference to include a supporting plate along with the film (4) between the filter elements.

In regard to claims 6 – 15, the examiner did not find any prior art that taught or suggested a filter module in which a filter element having a substrate comprising a cylindrical porous body having many pores and having a plurality of cells as flow paths for untreated liquid and a filtering membrane comprising a porous body smaller in average pore diameter than that of the substrate and formed on the inner wall of a plurality of the cells is contained in a hollow cylindrical case having flanges at both end parts, wherein the filter element is contained in the hollow cylindrical case in such a state as both end faces being supported by a supporting plate and a first sealer is interposed between the filter element and the supporting plate; the supporting plate has a first opening communicating with a plurality of the cells of the filter element and a second opening communicating with a space formed between the outer peripheral surface of the filter element and the inner peripheral surface of the hollow cylindrical case; and the first sealer liquid-tightly separates a plurality of the cells from the space formed between the outer peripheral surface of the filter element and the inner peripheral surface of the hollow cylindrical case and does not hinder a plurality of the cells of the filter element and the first opening from communicating with each other. As discussed above the '933 reference includes a film (4) that can be considered a first sealer, but does not include a supporting plate.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Other prior art references listed on the PTO-892 (Notice of References Cited) are considered to be of interest disclosing similar filtering devices.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ROBERT A. CLEMENTE whose telephone number is (571)272-1476. The examiner can normally be reached on M-F, 7:00-3:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Duane Smith can be reached on (571) 272-1166. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

RAC

/Duane S. Smith/
Supervisory Patent Examiner, Art Unit 1797
4-10-08